

REMARKS

This application has been reviewed in light of the Office Action dated August 12, 2004. Claims 1-57 are presented for examination, of which Claims 1, 23, and 45, the independent claims, have been amended to define still more clearly what Applicant regards as his invention. Favorable reconsideration is requested.

Applicant notes with appreciation the indication that Claims 7-22, 29-44, and 48-56 (which have been objected to) would be allowable if rewritten so as not to depend from a rejected claim, and with no change in scope. These claims have not been so rewritten because, for the reasons given below, their base claims are believed to be allowable.

Claims 1-6, 23-28, 45, and 46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,802,361 (*Wang '361*), in view of U.S. Patent No. 5,805,733 (*Wang '733*), Claim 47 was rejected under Section 103(a) as being unpatentable over *Wang '361* in view of *Wang '733* and further in view of European Patent EP 0 834 858 A2 (*Hirayama*), and Claim 57 was rejected under Section 103(a) as being unpatentable over *Wang '361* in view of *Wang '733* and further in view of U.S. Patent No. 5,166,723 (*Yoshida*).

As shown above, Applicant has amended independent Claims 1, 23, and 45 in terms that more clearly define what he regards as his invention. Applicant submits that these amended independent claims, together with the remaining claims dependent thereon, are patentably distinct from the cited prior art for at least the following reasons.

The aspect of the present invention set forth in Claim 1 is an image processing apparatus. The apparatus includes labeling means, sequential label set generation means, sequential label set accumulation means, similarity computation means,

scene change detection means, and scene change storage means. The labeling means extracts frame image data from moving image data, segments the frame image data into blocks, and respectively assigns, to the blocks, labels in accordance with feature amounts obtained in units of the blocks. The sequential label set generation means generates a sequential label set by arranging the labels assigned by the labeling means in a predetermined block order. The sequential label set accumulation means accumulates the sequential label set generated by the sequential label set generation means in connection with the frame image data. The similarity computation means computes similarities between the generated sequential label set and sequential label sets of a previous frame image data group. The scene change detection means detects a scene change frame in the moving image based on the similarities computed by the similarity computation means, and the scene change storage means stores information of the detected scene change frame in connection with the frame image data. The scene change detection means detects a frame corresponding to the generated sequential label set as the scene change frame, when a plurality of similarities computed by the similarity computation means are less than a predetermined value.

Among other important features of Claim 1 is the scene change detection means detects a frame corresponding to the generated sequential label set as the scene change frame, when a plurality of similarities computed by the similarity computation means are less than a predetermined value. Accordingly, a scene change detection can be implemented in which the appearance of a frame having absolutely no continuity is removed from the scene change detection while absorbing some continuous change in the

moving image. Support for this feature may be found at least at page 16, line 24, to page 18, line 2, and Figure 9 of the specification.¹

Wang '361 relates to methods for searching images having particular attributes and classifying the images according to their attributes. As noted by the Examiner, *Wang '361* discusses, at column 8, lines 31-35, "computing" similarities between image data in Figure 10 and the scene change detector 127 of Figure 1. However, the scene change detector 127 of *Wang '361* determines the location (time code offset or other similar index) of distinct scenes in a video sequence. It is apparent that the scene change detection of *Wang '361* is implemented using time code offset or another similar index. However, nothing has been found in *Wang '361* that would teach or suggest scene change detection means detecting a frame corresponding to the generated sequential label set as the scene change frame, when a plurality of similarities computed by the similarity computation means are less than a predetermined value, as recited in Claim 1.

Furthermore, as correctly stated by the Examiner, *Wang '361* fails to disclose generating a sequential label set by arranging the labels in a predetermined block order.

For at least the above reasons, Applicant submits that Claim 1 is clearly patentable over *Wang '361*, taken alone.

To remedy the deficiency of *Wang '361*, the Office Action cites *Wang '733* as teaching generating a sequential label set by arranging the labels in a predetermined block order, as recited in Claim 1. *Wang '733* relates to methods and systems for reviewing and analyzing video data. However, nothing has been found in *Wang '733* that

¹It is to be understood, of course, that the claim scope is not limited by the details of the described embodiments, which are referred to only to facilitate explanation.

would teach or suggest scene change detection means detecting a frame corresponding to the generated sequential label set as the scene change frame, when a plurality of similarities computed by the similarity computation means are less than a predetermined value, as recited in Claim 1.

Applicant submits that the proposed combination of *Wang '361* and *Wang '733*, assuming such combination would even be permissible, would fail to teach or suggest scene change detection means detecting a frame corresponding to the generated sequential label set as the scene change frame, when a plurality of similarities computed by the similarity computation means are less than a predetermined value, as recited in Claim 1.

Independent Claims 23 and 45 are method and storage medium claims, respectively, corresponding to apparatus Claim 1, and are believed to be patentable over *Wang '361* and *Wang '733* for at least the same reasons as discussed above in connection with Claim 1.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

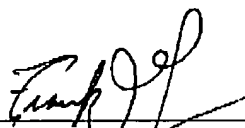
This Amendment After Final Action is believed clearly to place this application in condition for allowance and, therefore, its entry is believed proper under 37 C.F.R. § 1.116. Accordingly, entry of this Amendment After Final Action, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested. Should the Examiner believe that issues remain outstanding, it is respectfully requested

that the Examiner contact Applicant's undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



Frank A. DeLucia
Attorney for Applicants
Registration No.: 42,476

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

NY_MAIN 463463v1